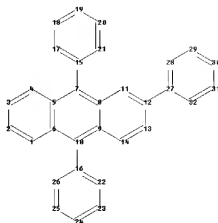
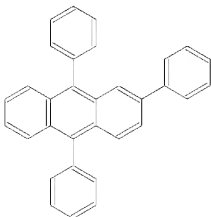


10/580,249 Search History

=> file reg

FILE 'REGISTRY' ENTERED AT 10:13:42 ON 09 APR 2009



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

24 25 26 27 28 29 30 31 32

chain bonds :

7-15 10-16 12-27

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13

13-14 15-17 15-21 16-22 16-26 17-18 18-19 19-20 20-21 22-23 23-24 24-25 25-26 27-28

27-32 28-29 29-30 30-31 31-32

exact bonds :

7-15 10-16 12-27

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13

13-14 15-17 15-21 16-22 16-26 17-18 18-19 19-20 20-21 22-23 23-24 24-25 25-26 27-28

27-32 28-29 29-30 30-31 31-32

Hydrogen count :

28:= exact 0 32:= exact 0

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom

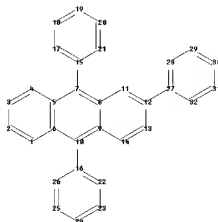
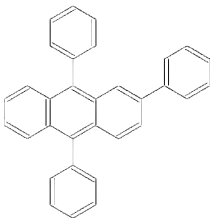
19:Atom 20:Atom 21:Atom

22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom  
30:Atom 31:Atom 32:Atom

L1 STRUCTURE UPLOADED

=> s l1 sss sam

L2 9 SEA SSS SAM L1



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

24 25 26 27 28 29 30 31 32

chain bonds :

7-15 10-16 12-27

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13

13-14 15-17 15-21 16-22 16-26 17-18 18-19 19-20 20-21 22-23 23-24 24-25 25-26 27-28

27-32 28-29 29-30 30-31 31-32

exact bonds :

7-15 10-16 12-27

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13

13-14 15-17 15-21 16-22 16-26 17-18 18-19 19-20 20-21 22-23 23-24 24-25 25-26 27-28

27-32 28-29 29-30 30-31 31-32

Hydrogen count :

28:= exact 0 29:= exact 1 31:= exact 1 32:= exact 0

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom  
19:Atom 20:Atom 21:Atom  
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom  
30:Atom 31:Atom 32:Atom

L3 STRUCTURE UPLOADED

=> s l3 sss sam

L4 0 SEA SSS SAM L3

=> s l3 sss ful

L5 2 SEA SSS FUL L3

=> file hcaplus uspatfull

=> s l5

FILE 'HCAPLUS'

L6 6 L5

FILE 'USPATFULL'

L7 7 L5

TOTAL FOR ALL FILES

L8 13 L5

=> dup remove l8

PROCESSING COMPLETED FOR L8

L9 8 DUP REMOVE L8 (5 DUPLICATES REMOVED)

ANSWERS '1-6' FROM FILE HCAPLUS

ANSWERS '7-8' FROM FILE USPATFULL

=> d l9 1-6 bib ab hit

L9 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1

AN 2007:464123 HCAPLUS <<LOGINID::20090409>>

DN 146:471844

TI Organic element for low voltage electroluminescent devices

IN Begley, William J.; Hatwar, Tukaram K.; Liao, Liang-Sheng; Spindler,  
Jeffrey P.; Klubek, Kevin P.

PA USA

SO U.S. Pat. Appl. Publ., 70pp., Cont.-in-part of U.S. Ser. No. 259,290,  
abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070092759	A1	20070426	US 2006-501336	20060809
WO 2007050334	A1	20070503	WO 2006-US40303	20061012
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1941562	A1	20080709	EP 2006-825999	20061012
R: DE, FR, GB				
JP 2009514222	T	20090402	JP 2008-537758	20061012
US 20070207347	A1	20070906	US 2007-796953	20070430
CN 101292371	A	20081022	CN 2006-80039365	20080422
KR 2008063780	A	20080707	KR 2008-709767	20080424
PRAI US 2005-259290	B2	20051026		
US 2006-501336	A	20060809		
WO 2006-US40303	W	20061012		

OS MARPAT 146:471844

AB An OLED device comprises a cathode, a light emitting layer and an anode,  
in that order, and, has located between the cathode and the light emitting  
layer, a further layer containing a cyclometallated complex represented by I,  
wherein: Z and the dashed arc represent 2 or 3 atoms and the bonds  
necessary to complete a 5- or 6-membered ring with M; each A represents H  
or a substituent and each B represents an independently selected  
substituent on the Z atoms, provided that <sup>3</sup>2 substituents may  
combine to form a fused ring or a fused ring system; j is 0-3 and k is 1  
or 2; M represents a Group IA, IIA, IIIA and IIB element of the periodic  
table; m and n are independently selected integers selected to provide a  
neutral charge on the complex; and provided that the complex does not

contain the 8-hydroxyquinolate ligand. Such devices exhibit reduced drive voltage while maintaining good luminance.

IT 517-51-1, Rubrene 7789-24-4, Lithium fluoride, uses 25387-93-3  
55035-43-3 105598-27-4 119586-44-6 122648-99-1 175606-05-0  
274905-73-6 348155-15-7 363609-60-3 676120-56-2 771586-87-9  
850797-15-8 850918-68-2 862501-00-6 862501-00-6 865435-16-1  
865435-18-3 865435-20-7 865435-22-9 865435-25-2  
865435-27-4 865435-28-5 865435-30-9 876322-27-9 876322-29-1  
916986-84-0 916986-85-1 916986-86-2

RL: TEM (Technical or engineered material use); USES (Uses)  
(organic element for low voltage electroluminescent devices)

L9 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 2

AN 2006:952658 HCAPLUS <<LOGINID::20090409>>

DN 145:324673

TI Organic electroluminescent devices employing a doped triaryl anthracene derivative as a light-emitting layer

IN Conley, Scott R.; Ricks, Michele L.; Begley, William J.; Gisser, Daniel J.  
PA USA

SO U.S. Pat. Appl. Publ., 23pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 20060204783	A1	20060914	US 2005-76720	20050310
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WO 2006098886	A1	20060921	WO 2006-US7351	20060224
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,  
KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,  
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,  
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM

PRAI US 2005-76720 A 20050310

OS MARPAT 145:324673

AB Organic electroluminescent devices (OLEDs) are described which comprise a cathode, an anode, and having there between a light-emitting layer containing an optionally substituted 2,9,10-triaryl anthracene; and a light-emitting dopant; the device further containing on the cathode side of the

light-emitting layer an electron transporting layer that contains a minor portion or no AlQ3. The device exhibits improved color or operating voltage or both.

IT 862501-00-6 865435-16-1 865435-18-3 865435-20-7 865435-22-9

865435-25-2 865435-27-4 865435-28-5 865435-30-9

RL: DEV (Device component use); USES (Uses)

(light-emitting host; organic electroluminescent devices employing doped triaryl anthracene derivative as light-emitting layer)

L9 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 3

AN 2006:74876 HCAPLUS <<LOGINID::20090409>>

DN 144:159899

TI White electroluminescent devices with anthracene derivative host

IN Conley, Scott R.; Hatwar, Tukaram K.

PA Eastman Kodak Co., USA

SO U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 20060019116	A1	20060126	US 2004-897357	20040722
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PRAI US 2004-897357		20040722		
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OS MARPAT 144:159899

AB OLED devices for emitting white light are described which comprise adjacent layers 1 and 2 where layer 1 contains a host and a yellow, orange, or red emitter and layer 2 contains a host and a blue or blue-green light emitter where the host in layer 2 comprises an anthracene material bearing an aromatic ring bonded to the 2-, 9-, and 10-positions of the anthracene nucleus.

IT 81-88-9D, derivs. 86-73-7D, Fluorene, derivs. 91-64-5D, Coumarin, derivs. 92-24-0D, Naphthacene, derivs. 92-83-1D, Xanthene, derivs. 120-12-7D, Anthracene, derivs. 120-72-9D, 1H-Indole, derivs. 188-94-3D, Periflanthene, derivs. 198-55-0D, Perylene, derivs. 289-67-8D, Pyrylium, derivs. 289-74-7D, Thiapyrylium, derivs. 517-51-1D, Rubrene, derivs. 1047-16-1D, Quinacridone, derivs. 4703-83-7D, derivs. 7440-42-8D, Boron, compds. 60475-00-5D, Thiopyran, derivs. 865435-16-1 865435-17-2 865435-18-3 865435-19-4 865435-21-8 865435-22-9 865435-23-0 865435-24-1 865435-25-2 865435-26-3 865435-27-4 865435-28-5 865435-29-6 865435-30-9 865435-31-0 865435-32-1 865435-33-2 865435-34-3 865435-35-4 865435-36-5 865435-38-7 865435-39-8 870558-21-7 873810-57-2

RL: DEV (Device component use); USES (Uses)

(host; white electroluminescent device with anthracene derivative host)

L9 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 4  
AN 2005:1292785 HCAPLUS <<LOGINID::20090409>>  
DN 144:29552

TI Electroluminescent devices employing mixtures of electroluminescent and nonelectroluminescent components

IN Brown, Christopher T.; Hatwar, Tukaram K.; Ricks, Michele L.

PA USA

SO U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of U.S. Ser. No. 658,010, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050271899	A1	20051208	US 2005-159691	20050623
	US 20040126617	A1	20040701	US 2003-658010	20030909
PRAI	US 2002-334324	B2	20021231		
	US 2003-658010	B2	20030909		

OS MARPAT 144:29552

AB Organic light-emitting devices comprising a light-emitting layer containing an electroluminescent component having a first bandgap and <sup>32</sup> nonelectroluminescent components having second and further bandgaps, resp. are described in which the second bandgap is equal to or greater than the first bandgap but is  $\leq 2.7$  eV; the further bandgaps are greater than the first and second bandgaps; the nonelectroluminescent component with the second bandgap is present in an amount of <sup>34</sup> weight % of the total components in the light-emitting layer; the nonelectroluminescent components with further bandgaps are present in a combined amount of 0.1-65.9 weight % of the total components in the light-emitting layer; and the electroluminescent component is present in amount of 0.1-5 weight % of the total components in the light-emitting layer.

IT 281-23-2D, Adamantane, aryl derivs. 517-51-1 2085-33-8,  
Tris(8-hydroxyquinolinato)aluminum 51325-95-2 85213-03-2 123847-85-8  
159788-00-8 175606-05-0 192198-85-9 200052-70-6 200052-71-7  
200052-72-8 213749-94-1 219318-86-2 219319-06-9 274905-73-6  
368884-57-5 374592-94-6 478799-46-1 478799-67-6 504408-22-4  
616235-15-5 714215-47-1 828268-34-4 865435-17-2 865435-18-3  
865435-19-4 865435-20-7 865435-21-8 865435-22-9 865435-23-0  
865435-24-1 865435-25-2 865435-26-3 865435-27-4  
865435-28-5 865435-29-6 865435-30-9 865435-31-0 865435-32-1  
865435-33-2 865435-34-3 865435-35-4 865435-36-5 865435-38-7  
865435-39-8 868839-39-8 870558-11-5 870558-13-7 870558-18-2  
870558-21-7

RL: DEV (Device component use); USES (Uses)

(organic electroluminescent devices employing mixts. of electroluminescent and nonelectroluminescent components)

L9 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 5

AN 2005:1049661 HCAPLUS <<LOGINID::20090409>>

DN 143:335983

TI Electroluminescent device with anthracene derivative host

IN Conley, Scott R.; Vreeland, William B.; Cosimbescu, Lelia

PA Eastman Kodak Company, USA

SO U.S. Pat. Appl. Publ., 38 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20050211958	A1	20050929	US 2004-809064	20040325
US 7326371	B2	20080205		
WO 2005100506	A1	20051027	WO 2005-US8253	20050311
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1730249	A1	20061213	EP 2005-725437	20050311
R: DE, FR, GB				
CN 1934215	A	20070321	CN 2005-80009404	20050311
JP 2007531273	T	20071101	JP 2007-504998	20050311
KR 2006134999	A	20061228	KR 2006-719642	20060922
PRAI US 2004-809064	A	20040325		
WO 2005-US8253	W	20050311		

OS MARPAT 143:335983

AB Electroluminescent devices are described which comprise a light-emitting layer including an anthracene material bearing at least one aryl ring in the 2-position and having a hydrogen or an alkyl group in the 6-position and having up to 12 aromatic carbocyclic rings including at least one naphthalene group in the 9-position of the anthracene group and an aryl group in the 10-position, the anthracene material including among the rings only carbocyclic rings.



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 865435-21-8 865435-25-2 865435-26-3 865435-27-4  
865435-28-5 865435-29-6 865435-30-9 865435-31-0 865435-32-1  
865435-33-2 865435-34-3 865435-35-4 865435-36-5 865435-37-6  
865435-38-7 865435-39-8  
RL: DEV (Device component use); USES (Uses)  
(host; electroluminescent device with anthracene derivative host)

L9 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:1253318 HCAPLUS <<LOGINID::20090409>>

DN 146:35704

TI Organic light-emitting devices employing electron-transporting layer  
having the same chromophore as that of the dominant host in the  
light-emitting layer

IN Liao, Liang-Sheng; Conley, Scott Robert; Cosimbescu, Lelia; Jarikov,  
Viktor Viktorovich

PA Eastman Kodak Company, USA

SO PCT Int. Appl., 83pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006127315	A2	20061130	WO 2006-US18725	20060516
WO 2006127315	A3	20070118		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20060269782	A1	20061130	US 2005-136768	20050525
EP 1883982	A2	20080206	EP 2006-759837	20060516
R: DE, FR, GB				
JP 2008546185	T	20081218	JP 2008-513528	20060516
PRAI US 2005-136768	A	20050525		
WO 2006-US18725	W	20060516		

OS MARPAT 146:35704

AB Organic light-emitting devices (OLEDs) are described which comprise an anode, a cathode, and a light-emitting layer disposed between the anode and the cathode, where the light-emitting layer includes a dominant host and a dopant; and an electron-transporting layer disposed in direct contact with the light-emitting layer on the cathode side, where the electron-transporting layer includes an electron-transporting material having the same chromophore as that of the dominant host in the light-emitting layer, where the electron-transporting material constitutes more than 50% by volume of the electron-transporting layer, and where the electron-transporting material has a greater reduction potential than that of the dominant host in the light-emitting layer.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 862501-00-6 865435-16-1 865435-18-3 865435-22-9 865435-25-2  
865435-27-4 865435-28-5 865435-30-9 873221-91-1 915951-48-3  
915951-49-4 915951-50-7 915951-51-8 915951-52-9 915951-53-0  
915951-54-1 915951-55-2 915951-56-3

RL: TEM (Technical or engineered material use); USES (Uses)  
(electron-transporting; organic light-emitting devices employing  
electron-transporting layer having same chromophore as that of dominant  
host in light-emitting layer)

=> d 19 7-8 bib ab

L9 ANSWER 7 OF 8 USPATFULL on STN

AN 2007:236972 USPATFULL <<LOGINID::20090409>>

TI Organic element for low voltage electroluminescent devices

IN Begley, William J., Webster, NY, UNITED STATES  
Hatwar, Tukaram K., Penfield, NY, UNITED STATES  
Liao, Liang-Sheng, Rochester, NY, UNITED STATES  
Spindler, Jeffrey P., Rochester, NY, UNITED STATES  
Klubek, Kevin P., West Henrietta, NY, UNITED STATES  
Rajeswaran, Manju, Fairport, NY, UNITED STATES  
Andrievsky, Natasha, Webster, NY, UNITED STATES

PA Eastman Kodak Company (U.S. corporation)

PI US 20070207347 A1 20070906

AI US 2007-796953 A1 20070430 (11)

RLI Continuation of Ser. No. US 2006-501336, filed on 9 Aug 2006, PENDING  
Continuation-in-part of Ser. No. US 2005-259290, filed on 26 Oct 2005,  
ABANDONED

DT Utility

FS APPLICATION

LREP Patent Legal Staff, Eastman Kodak Company, 343 State Street, Rochester,

NY, 14650-2201, US  
CLMN Number of Claims: 27  
ECL Exemplary Claim: 1  
DRWN 5 Drawing Page(s)  
LN.CNT 3372

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An OLED device comprises a cathode, a light emitting layer and an anode, in that order, and, has located between the cathode and the light emitting layer, a further layer containing a cyclometallated complex represented by Formula (4') ##STR1## wherein: Z and the dashed arc represent two or three atoms and the bonds necessary to complete a 5- or 6-membered ring with M; each A represents H or a substituent and each B represents an independently selected substituent on the Z atoms, provided that two or more substituents may combine to form a fused ring or a fused ring system; j is 0-3 and k is 1 or 2; M represents a Group IA, IIA, IIIA and IIB element of the Periodic Table; m and n are independently selected integers selected to provide a neutral charge on the complex; and provided that the complex does not contain the 8-hydroxyquinolate ligand. Such devices exhibit reduce drive voltage while maintaining good luminance.

L9 ANSWER 8 OF 8 USPATFULL on STN

AN 2006:314999 USPATFULL <<LOGINID::20090409>>

TI OLED electron-transporting layer

IN Liao, Liang-Sheng, Rochester, NY, UNITED STATES

Conley, Scott R., Rochester, NY, UNITED STATES

Cosimbescu, Lelia, Rochester, NY, UNITED STATES

Jarikov, Viktor V., Rochester, NY, UNITED STATES

PA Eastman Kodak Company (U.S. corporation)

PI US 20060269782 A1 20061130

AI US 2005-136768 A1 20050525 (11)

DT Utility

FS APPLICATION

LREP Pamela R. Crocker, Patent Legal Staff, Eastman Kodak Company, 343 State Street, Rochester, NY, 14650-2201, US

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN 6 Drawing Page(s)

LN.CNT 1363

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An organic light-emitting device (OLED) includes an anode, a cathode, and a light-emitting layer disposed between the anode and the cathode, wherein the light-emitting layer includes a dominant host and a dopant. The device also includes an electron-transporting layer disposed in direct contact with the light-emitting layer on the cathode side, wherein the electron-transporting layer includes an

electron-transporting material having the same chromophore as that of the dominant host in the light-emitting layer, wherein the electron-transporting material constitutes more than 50% by volume of the electron-transporting layer, and wherein the electron-transporting material has a greater reduction potential than that of the dominant host in the light-emitting layer.

=> file reg

=> s l1 sss ful

L10 198 SEA SSS FUL L1

=> file hcaplus uspatfull

=> s l10 not l8

FILE 'HCAPLUS'

17 L10

L11 11 L10 NOT L6

FILE 'USPATFULL'

12 L10

L12 5 L10 NOT L7

TOTAL FOR ALL FILES

L13 16 L10 NOT L8

=> dup remove

ENTER L# LIST OR (END):l13

PROCESSING COMPLETED FOR L13

L14 12 DUP REMOVE L13 (4 DUPLICATES REMOVED)

ANSWERS '1-11' FROM FILE HCAPLUS

ANSWER '12' FROM FILE USPATFULL

=> d l14 1-11 bib ab hit

L14 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1

AN 2007:993658 HCAPLUS <<LOGINID::20090409>>

DN 147:354622

TI Anthracene derivatives for electron transport layers in organic electronic devices such as LEDs

IN Bae, Jae-Soon; Lee, Dae-Woong; Lee, Dong-Hoon; Jang, Jun-Gi; Jeon,

Sang-Young; Kim, Ji-Eun  
 PA S. Korea  
 SO U.S. Pat. Appl. Publ., 163pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070205412	A1	20070906	US 2007-714167	20070306
KR 2007091540	A	20070911	KR 2007-20836	20070302
KR 872692	B1	20081210		
WO 2007102683	A1	20070913	WO 2007-KR1082	20070305
WO 2007102683	A9	20081224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1991514	A1	20081119	EP 2007-715485	20070305
R: DE, FR, GB				
CN 101395105	A	20090325	CN 2007-80008185	20080908
PRAI KR 2006-21119	A	20060306		
WO 2007-KR1082	W	20070305		
OS MARPAT 147:354622				
AB Anthracene compds. can be used as a material for an organic material layer of an organic electronic device, including an organic light emitting device, by the introduction of various aryl groups, heteroaryl groups, arylamino groups, or the like to the anthracene compound. The organic electronic device including an organic light emitting device, which uses the anthracene compound as a material for an organic material layer, shows excellent characteristics in efficiency, drive voltage, life time, or the like.				
IT 948860-22-8P 948860-23-9P 948860-24-0P 948861-42-5P				
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
(LED electron transport layer; anthracene derivs. for organic electronic devices such as LEDs)				
IT 948860-25-1P 948860-97-7P 948861-47-0P				

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(anthracene derivs. for organic electronic devices such as LEDs)

IT 948860-14-8 948860-15-9 948860-16-0  
948860-17-1 948860-18-2 948860-19-3  
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948860-29-5 948860-31-9 948860-33-1  
948860-34-2 948860-35-3 948860-36-4  
948860-37-5 948860-38-6 948860-39-7  
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 948862-41-7 948862-42-8 948862-43-9 948862-44-0 948862-45-1  
 948862-46-2 948862-47-3 948862-48-4 948862-49-5

RL: TEM (Technical or engineered material use); USES (Uses)

(anthracene derivs. for organic electronic devices such as LEDs)

L14 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 2

AN 2007:647454 HCAPLUS <<LOGINID::20090409>>

DN 147:82368

TI Novel imidazoquinazoline derivative, process for preparing the same, and  
 organic electronic device using the same

IN Bae, Jae-Soon; Lee, Dong-Hoon; Lee, Dae-Woong; Jang, Jun-Gi; Jeon,  
 Sang-Young

PA S. Korea

SO U.S. Pat. Appl. Publ., 156pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070131929	A1	20070614	US 2006-637174	20061212
KR 2007062920	A	20070618	KR 2006-125937	20061212
KR 864364	B1	20081017		
WO 2007069847	A1	20070621	WO 2006-KR5420	20061213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1960402	A1	20080827	EP 2006-824124	20061213

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
CN 101291935 A 20081022 CN 2006-80039399 20080422  
PRAI KR 2005-122778 A 20051213  
WO 2006-KR5420 W 20061213  
OS MARPAT 147:82368

AB The present invention relates to a novel imidazoquinazoline derivative, a process for preparing the imidazoquinazoline derivative, and an organic electronic device using the imidazoquinazoline derivative as hole injecting, hole transporting, electron injecting, electron transporting, or a light emitting material, where the organic electronic device includes an organic light emitting device, and the device according to the present invention exhibits excellent characteristics in efficiency, operating voltage, and stability.

IT 940966-33-6P 940966-49-4P 940966-50-7P 940966-73-4P  
940966-86-9P 940966-94-9P 940966-95-0P 940967-18-0P  
940967-19-1P 940967-24-8P 940967-55-5P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(novel imidazoquinazoline derivative, process for preparation, and organic electronic device using imidazoquinazoline derivative)

IT 940965-58-2P 940965-59-3P 940965-60-6P 940965-61-7P 940965-62-8P  
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 940968-00-3P 940968-01-4P 940968-02-5P 940968-03-6P 940968-04-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(novel imidazoquinazoline derivative, process for preparation, and organic electronic device using imidazoquinazoline derivative)

L14 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 3

AN 2005:394611 HCAPLUS <<LOGINID::20090409>>

DN 142:438399

TI Organic element for electroluminescent devices using rubrene derivative

IN Begley, William J.; Hatwar, Tukaram K.; Rajeswaran, Manju; Giesen, David J.; Andrievsky, Natasha

PA Eastman Kodak Company, USA

SO U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050095452	A1	20050505	US 2003-701040	20031104
	US 7083865	B2	20060801		
WO	2005047421	A1	20050526	WO 2004-US35435	20041027
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-701040 A 20031104

OS MARPAT 142:438399

AB Disclosed is an OLED device comprising a light-emitting layer (LEL) containing a host and a dopant located between a cathode and an anode wherein the emitter is an orange-red light emitting rubrene derivative (I): wherein: (a) there are identical aromatic groups at the 2- and 8-positions; (b) the Ph rings in the 5- and 11-positions contain only para-substituents identical to the aromatic groups in paragraph (a); and (c) the Ph rings in the 6- and 12-positions are substituted or not.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 850765-62-7 850765-63-8 850765-64-9 850765-65-0 850765-67-2  
 850765-68-3 850765-69-4 850765-70-7 850765-71-8 850765-72-9  
 850765-73-0 850765-74-1

RL: PRP (Properties)

(organic element for electroluminescent devices using rubrene derivative)

L14 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 4

AN 2005:394609 HCAPLUS <<LOGINID::20090409>>

DN 142:438397

TI Organic element for electroluminescent devices using fluoronaphacene derivatives

IN Begley, William J.; Hatwar, Tukaram K.; Rajeswaran, Manju; Andrievsky, Natasha

PA Eastman Kodak Company, USA

SO U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050095450	A1	20050505	US 2003-700894	20031104
	US 7087320	B2	20060808		
	WO 2005048371	A1	20050526	WO 2004-US35241	20041025

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-700894 A 20031104

OS MARPAT 142:438397

AB Disclosed is an OLED device comprising a light-emitting layer (LEL) containing a host and an emitting dopant located between a cathode and an anode wherein the dopant is a naphthalene derivative (I); wherein: (a) said naphthalene derivative contains at least one F or F containing group; and (b) when exactly two F containing groups are present said groups are not located at the 5- and 12-positions or at the 6- and 11-positions.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 682806-51-5 850755-34-9 850755-36-1 850755-40-7 850755-41-8  
850755-42-9 850755-43-0 850755-44-1 850755-45-2 850755-46-3  
850755-48-5 850755-49-6 850765-59-2 850765-60-5 850765-61-6  
850765-68-3 850765-70-7 850765-73-0 850765-74-1  
850797-16-9 850797-17-0 850797-19-2 850797-20-5 850797-21-6  
850797-22-7 850797-23-8 850833-45-3 850833-46-4 850833-47-5  
850833-48-6 850833-49-7 850833-50-0 850833-51-1

RL: DEV (Device component use); PRP (Properties); USES (Uses)  
(organic element for electroluminescent devices using fluoronaphacene derivs.)

L14 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2009:33004 HCAPLUS <<LOGINID::20090409>>

DN 150:191140

TI Preparation of anthracene compounds as green/blue electroluminescent substances

IN Kim, Dong Ha; Choi, Dae Hyeok; Kim, Dae Seong; Park, Jeong Cheol; Nam, Hyeon Guk; Hong, Cheol Gwang; Park, Yong Uk; Yoo, Han Seong

PA Ludis Co., Ltd., S. Korea

SO Repub. Korea, 36pp.

CODEN: KRXXFC

DT Patent

LA Korean

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 877344	B1	20090107	KR 2007-80397	20070810
PRAI KR 2007-80397		20070810		
OS MARPAT 150:191140				
<p>AB Title compds. I [R1, R2 = Ph, p-tolyl, m-tolyl, etc.; R9 = H, Ph, p-tolyl, etc.; R3-R8, R10-R13 = H, halo, cyano, etc.] were prepared For example, reaction of 2-bromo-9,10-diphenylanthracene, e.g., prepared from 2-bromoanthraquinone in 2 steps, with n-butyllithium followed by in-situ treatment with triisopropyl borate, exposure to HCl and Pd(PPh3)4 catalyzed coupling reaction with 9-bromo-10-(naphthalen-2-yl)anthracene afforded compound II. It was demonstrated that compound II emitted green/blue electroluminescence with elec. stability, high luminous efficiency and brightness.</p>				
IT 948861-42-5P 948861-44-7P 948861-67-4P				
1056644-95-1P 1068163-64-3P 1108196-64-0P				
1108196-65-1P 1108196-66-2P 1108196-67-3P				
1108196-68-4P 1108196-69-5P 1108196-70-8P				
1108196-71-9P 1108196-72-0P 1108196-73-1P				
1108196-74-2P 1108196-75-3P 1108196-76-4P				
1108196-78-6P 1108196-79-7P 1108196-80-0P				
1108196-81-1P 1108196-82-2P 1108196-83-3P				
1108196-84-4P 1108196-85-5P 1108196-86-6P				
1108196-87-7P 1108196-88-8P 1108196-89-9P				
1108196-90-2P 1108196-92-4P 1108196-93-5P				
1108196-94-6P 1108196-95-7P 1108196-96-8P				
1108196-97-9P 1108196-98-0P 1108196-99-1P				
1108197-00-7P 1108197-01-8P 1108197-02-9P				
1108197-03-0P 1108197-04-1P 1108197-05-2P				
1108197-06-3P 1108197-07-4P 1108197-08-5P				
1108197-09-6P 1108197-10-9P 1108197-11-0P				
1108197-12-1P 1108197-13-2P 1108197-14-3P				
1108197-15-4P 1108197-16-5P 1108197-17-6P				
1108197-18-7P 1108197-19-8P 1108197-20-1P				
1108197-21-2P 1108197-22-3P 1108197-23-4P				
1108197-24-5P 1108197-25-6P 1108197-26-7P				
1108197-27-8P 1108197-28-9P 1108197-29-0P				
1108197-30-3P 1108197-31-4P 1108197-32-5P				
1108197-33-6P 1108197-34-7P 1108197-35-8P				
1108197-36-9P 1108197-37-0P 1108197-38-1P				
1108197-39-2P 1108197-40-5P 1108197-41-6P				
1108197-42-7P 1108197-43-8P 1108197-44-9P				
1108197-45-0P 1108197-46-1P 1108197-47-2P				
<p>RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)</p> <p>(preparation of anthracene compds. as green/blue electroluminescent</p>				

substances)

L14 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2008:1219627 HCAPLUS <<LOGINID::20090409>>

DN 149:458089

TI Organic electroluminescent device, coating solution for making organic electroluminescent device and color display device

IN Urano, Toshiyoshi; Minakami, Junji; Shimizu, Wataru; Nagao, Shigeki; Yabe, Masayoshi; Goromaru, Hideki

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 84pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI	JP 2008244424		A	20081009	JP 2007-286460	20071102
PRAI	JP 2006-299157		A	20061102		
	JP 2007-51580		A	20070301		

AB The invention relates to an organic electroluminescent device, suited for use in making a color display device, comprising a blue-emitting electroluminescent layer fabricated between a pair of electrodes, wherein the blue-emitting substance, typically a compound having a anthracene skeleton, is characterized by the glass transition temperature  $T_g$   $\geq 80$  °C, and the solubility for toluene  $\geq 0.2$  %.

IT 76656-53-6 518997-91-6 669016-17-5 855828-33-0 949925-38-6  
1067224-98-9 1067224-99-0 1068163-54-1 1068163-56-3 1068163-60-9  
1068163-64-3 1068163-66-5 1068163-68-7  
1068163-70-1 1068163-72-3 1068163-75-6 1068163-77-8 1068163-79-0  
1068163-81-4

RL: TEM (Technical or engineered material use); USES (Uses)

(blue-emitting substance; organic electroluminescent device, coating solution for making organic electroluminescent device and color display device)

L14 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2008:1118209 HCAPLUS <<LOGINID::20090409>>

DN 149:365931

TI Anthracene derivatives and organic light-emitting device including the same

IN Choi, Kyung-Hoon; Choi, Young-Suck; Park, Mie-Hwa; Lim, Choon-Woo; Chun, Min-Seung; Park, Young-Ho; Lee, Kwan-Hee

PA Samsung SDI Co., Ltd., S. Korea

SO Eur. Pat. Appl., 30pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1970978	A2	20080917	EP 2008-152670	20080313
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
KR 858816	B1	20080917	KR 2007-25072	20070314
CN 101267022	A	20080917	CN 2008-10086807	20080313
JP 2008258603	A	20081023	JP 2008-66612	20080314
KR 858826	B1	20080917	KR 2008-62873	20080630
PRAI KR 2007-25072	A	20070314		

AB Organic light-emitting devices comprising a first electrode; a second electrode; and <sup>31</sup>I organic layers interposed between the first electrode and the second electrode are described in which <sup>31</sup>I of the organic layers comprises <sup>31</sup>I anthracene derivs. are described by the general formula I (R1 and R2 = independently selected H, (un)substituted C1-30 alkyl, (un)substituted C1-30 alkoxy, (un)substituted C6-30 aryl, (un)substituted C6-30 aryloxy, (un)substituted C4-30 heteroaryl, (un)substituted C6-30 condensed polycyclic, OH, halo, cyano, or (un)substituted amino). The organic layer may comprise <sup>32</sup>I anthracene derivs. or a mixture of an anthracene derivative and a metal complex. The anthracene complex-containing layer may be an electron-transporting or electron-injecting layer. The anthracene derivs. are also claimed.

IT 926032-94-2P 1056644-95-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(anthracene derivs. and organic light-emitting devices using them)

L14 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2008:1446461 HCAPLUS <<LOGINID::20090409>>

DN 150:121122

TI Novel green small-molecule host materials for solution-processed organic light-emitting diodes

AU Kim, Dong-Ha; Choi, Dae Hyuk; Park, Jung Joo; Lee, Seong Taek; Kwon, Jang Hyuk

CS Department of Information Display, Kyung Hee University, Seoul, 130-701, S. Korea

SO Chemistry Letters (2008), 37(11), 1150-1151

CODEN: CMLTAG; ISSN: 0366-7022

PB Chemical Society of Japan

DT Journal

LA English

AB The authors report novel small-mol. green-fluorescent hosts for solution processed OLEDs. 9,10-Diarylanthracene and fluorene moieties were

introduced to the 9 and 10 positions of an anthracene core to give the strong amorphous characteristics. These novel hosts show sufficient optical, elec., and thermal properties with very good solubility in organic solvents. Utilizing these solution-processed hosts, a maximum current efficiency of 7.8 cd/A is demonstrated with a general fluorescent dopant.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 1096769-82-2P 1096769-83-3P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(doped with C545T; green-fluorescent small-mol. host materials for solution-processed organic light-emitting diodes)

L14 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2007:89637 HCAPLUS <<LOGINID::20090409>>

DN 146:193485

TI Imidazole derivatives, their preparation and organic electronic devices using the imidazole derivatives as carrier-injection material, carrier-transport material or light-emitting host

IN Bae, Jae-Soon; Lee, Dae-Woong; Lee, Dong-Hoon; Jeong, Dong-Seob

PA Lg Chem. Ltd., S. Korea

SO PCT Int. Appl., 46pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2007011163	A1	20070125	WO 2006-KR2836	20060719
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	US 20070018154	A1	20070125	US 2006-487988	20060718
	KR 2007012218	A	20070125	KR 2006-67423	20060719
	KR 813385	B1	20080312		
	EP 1824942	A1	20070829	EP 2006-783351	20060719

R: DE, FR, GB  
CN 101061200 A 20071024 CN 2006-80001227 20060719  
JP 2008521244 T 20080619 JP 2007-542935 20060719  
PRAI KR 2005-66731 A 20050722  
WO 2006-KR2836 W 20060719  
OS MARPAT 146:193485

AB Disclosed are novel imidazole derivs. with formula (I), preparation methods and organic electronic devices using the imidazole derivs. as a carrier-injection material, a carrier-transport material or a light-emitting host. THus, green- and blue-emitting electroluminescent device employing the imidazole derivs. show excellent characteristics in terms of efficiency, driving voltage and stability.

RE,CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 921200-64-8P 921200-65-9P 921200-67-1P 921200-68-2P 921200-69-3P  
921200-70-6P 921200-71-7P 921200-72-8P 921200-73-9P 921200-74-0P  
921200-75-1P 921200-76-2P 921200-77-3P 921200-78-4P  
921200-79-5P 921200-80-8P 921200-81-9P 921200-82-0P 921200-83-1P  
921200-85-3P 921200-86-4P 921200-87-5P 921200-88-6P 921200-89-7P  
921200-90-0P 921200-91-1P 921200-92-2P 921200-93-3P 921200-94-4P  
921200-95-5P 921200-96-6P 921200-97-7P 921200-98-8P 921200-99-9P  
921201-00-5P 921201-01-6P 921201-02-7P 921201-03-8P 921201-04-9P  
921201-05-0P 921201-06-1P 921201-07-2P 921201-08-3P 921201-09-4P  
921201-10-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(imidazole derivs., their preparation and organic electronic devices using imidazole derivs. as carrier-injection material, carrier-transport material or light-emitting host)

L14 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2007:1081247 HCAPLUS <<LOGINID::20090409>>

DN 147:417624

TI Anthracene derivatives and their use in organic electronic devices and the devices

IN Stoessel, Philipp; Heil, Holger; Parham, Amir; Vestweber, Horst

PA Merck Patent G.m.b.H., Germany

SO Ger. Offen., 40pp.

CODEN: GWXXBX

DT Patent

LA German

FAN,CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI DE 102006013802	A1	20070927	DE 2006-102006013802	20060324
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WO 2007110129 A1 20071004 WO 2007-EP1732 20070228  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
EP 1999226 A1 20081210 EP 2007-722982 20070228  
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
KR 2008114812 A 20081231 KR 2008-725882 20081023  
IN 2008KN04318 A 20090306 IN 2008-KN4318 20081023  
PRAI DE 2006-102006013802 A 20060324  
WO 2007-EP1732 W 20070228  
OS CASREACT 147:417624; MARPAT 147:417624  
AB Derivs. of 9,10-diphenylanthracene are described which are suitable for use as host materials for fluorescent emitters, as electron-transporting materials, and/or as hole-blocking materials in organic electronic devices. Electronic devices (e.g., organic and polymeric electroluminescent devices, organic FETs, organic integrated circuits, organic thin-film transistors, organic integrated circuits, organic solar cells, organic field quenching devices, organic light-emitting transistors, light-emitting electrochem. cells, organic photoreceptors, and organic laser diodes) using the derivs. are also described.  
IT 951008-77-8P, 2,6,9,10-Tetra-o-tolylanthracene 951008-79-0P, 2,6-Bis-o-tolyl-9,10-bis[2-(1-methyl-1-phenylethyl)phenyl]anthracene 951008-80-3P, 2,6-Bis-o-tolyl-9,10-bis(2-trimethylsilylphenyl)anthracene 951008-81-4P 951008-85-8P, 2,6-Bis[9-(4-methylnaphthyl)anthracen-10-yl]-9,10-bis-o-tolylanthracene 951008-91-6P 951008-94-9P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(diphenylanthracene derivs. for organic electronic devices and devices)  
L14 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN  
AN 2004:674821 HCAPLUS <<LOGINID::20090409>>  
DN 141:197152  
TI Bianthracenes, their organic electroluminescent solutions, and blue-emitting organic electroluminescent devices  
IN Ikeda, Shuji; Hosokawa, Chishio

PA Idemitsu Kosan Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 21 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004231563	A	20040819	JP 2003-21674	20030130
PRAI JP 2003-21674		20030130		
OS MARPAT 141:197152				

AB The bianthracenes are I [31 of R1-R18 = ArCR21:CR19R20; R19-R21 = H, (un)substituted C1-40 alkyl, (un)substituted C2-40 alkenyl, etc.; Ar = C6-40 arylene, C3-40 heteroarylene; others of R1-R18 = H, (un)substituted C1-40 alkyl, (un)substituted C2-40 alkenyl, etc.; n = 1-3]. Thus, I (R1-R9 = R10-R13 = R15-R18 = H, R14 = 2,2-diphenylvinyl) was manufactured and used as an emitter layer for organic electroluminescent device.

IT 738601-05-3P 738601-14-4P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manufacture of bianthracenes as electroluminescent materials for blue-emitting organic electroluminescent devices)

=> d 114 12 bib ab

L14 ANSWER 12 OF 12 USPATFULL on STN

AN 2007:21118 USPATFULL <<LOGINID::20090409>>

TI Imidazole derivatives and organic electronic device using the same

IN Bae, Jae Soon, Daejeon Metropolitan City, KOREA, REPUBLIC OF  
Lee, Dae Woong, Daejeon Metropolitan City, KOREA, REPUBLIC OF  
Lee, Dong Hoon, Seoul, KOREA, REPUBLIC OF  
Jeong, Dong Seob, Seoul, KOREA, REPUBLIC OF

PI US 20070018154 A1 20070125

AI US 2006-487988 A1 20060718 (11)

PRAI KR 2005-66731 20050722

DT Utility

FS APPLICATION

LREP MCKENNA LONG & ALDRIDGE LLP, 1900 K STREET, NW,  
WASHINGTON, DC, 20006,  
US

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)

LN.CNT 808

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are novel imidazole derivatives and organic electronic device using the same. The disclosed organic electronic device show excellent characteristics in terms of efficiency, driving voltage and stability.